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A b o r h

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The English alphabet has 26 letters, which are used to represent speech sounds. 5 letters of the alphabet (A,E,I,O,U) are vowels and 21 other letters are consonants (B, C, D, F, G, H, J, K, L, M, N, P, Q, R, S, T, V, X, Z, W, Y). These letters are Latin based. English alphabet is the initial lesson that everybody start learning, so it is essential to study the English letters.
● What are the English alphabet letters?
Upper case letters (Capital letters) are: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
Lower case letters (Small letters) are: a b c d e f g h i j k l m n o p q r s t u v w x y z
In English a group of letters can give a separate sound such as: ph, sh and th. This is called digraph.
Examples: photo, they, she
Spelling of a word in English can be tricky to pronounce, so we have phonetic alphabet and phonetic chart that help us pronounce the letters correctly in a word. Click here to learn phonetic alphabet or here to learn phonetic alphabet on YouTube
● English alphabet and pronunciations
The browser you are using does not support HTML5 audio playback.
Sorry.
● Some abbreviations in English
LOL – Laughing Out Loud
B4N – Bye For Now
A.S.A.P – As Soon As Possible
P.M. – Post Meridiem
A.M. – Post Meridiem
P.S. – Post Script
ATM – Automated Teller Machine
BC – Before Christ or Because
ESL- English as Second Language
FAQ – Frequently-Asked Questions
RIP – Rest In Peace
IBAN – International Bank Account Number
ID – Identification
ISBN – International Standard Book Number
● Games to play
● Flashcards exercise about English letters
This exercise tests your alphabet knowledge. In order to play the game click on the cards and then say the letter in English. When you reload the page the cards and content of it change.
● Jigsaw puzzle game for the alphabet
3x3 Puzzle
4x4 Puzzle
5x5 Puzzle
6x6 Puzzle
WELL DONE!
3x3 Puzzle
4x4 Puzzle
5x5 Puzzle
6x6 Puzzle
This is a funny activity about English letters. Try to guess the expressions below and then click on them to see the answers.
>>> How R U? How are you?
>>> I love U I love you
>>> Y R U
2 L&T Why are you so late?
>>> The CD is 4 U. The CD is for you.
>>> C U later. See you later
>>> B4 Before
● Download the alphabet worksheet
At this point it is a good idea to learn the phonetic alphabet. The phonetic alphabet is the list of symbols or codes that shows what a speech sound or letter sounds like in English. Here you can listen to the alphabet song (UK version) or the alphabet song (US version)
External resource links:
You can also click here to watch a video about English alphabet or here to see more information about English alphabet on Wikipedia.
If you want a pdf document from VOA learning English, click here.
You should know how to say phonetic alphabet. So you can learn it with sounds here interactively.
Your blood type is a combination of letters and signs identifying antigens present or absent on the surface of your red blood cells. Antigens are substances that can trigger the immune system to produce antibodies.

Antibodies are proteins that lead an attack on substances perceived as foreign "invaders." Blood typing is essential if you need to receive a blood transfusion. Your antibodies can attack transfused red blood cells of incompatible types. Mixing certain blood types can have dangerous health consequences. Some types of blood are more common than others, and they vary in compatibility. This article will discuss how blood types are identified, how rare or common they are, and what that means for you.
Illustration by Lara Antal for Verywell Health
The ABO system has four major blood types: A, B, AB, and O. Blood types are further categorized by the presence (positive or +) or absence (negative or -) of the Rh(D) antigen on the surface of their red blood cells, also known as the Rh factor. This produces the eight major blood types. The Eight Main Blood Types
A+ A- B+ B- AB+ AB- O+ O-
A and B antigens are sugars. The type of sugar antigens a person has determines whether they have A, B, or a mix of A and B (AB). If they lack both A and B, they are type O. Protein antigens identify if you have a negative or positive Rh factor. A plus (+) or minus (-) sign indicates the presence or absence of the Rh factor. While the plus indicates the presence of the antigen, while the minus means it is not widely present. About 85% of the population is Rh positive. The International Society of Blood Transfusion further divides blood types into blood group systems by other types of antigens that may be present. They have identified 45 different blood group systems with hundreds of different antigens. Some blood types are found in a limited number of people. In the United States, the blood types each found in less than 5% of the population are: AB-: 0.6% of the populationB-: 1.5% of the populationAB+: 3.4% of the population
More than 70% of the people in the United States have one of these two common blood types: O+: 37.4% of the populationA+: 35.7% of the population
Golden blood is the rarest known type of blood in the world. It has no Rh antigens at all, known as Rhnull. It is dubbed "golden blood" because it can be donated to people with almost any Rh blood type, including those with rare types of Rh antigens. However, if people with golden blood need blood, they can only receive the same type of blood. Experts estimate that only about 50 people are known to have golden blood, which was first detected in Australian aboriginal people. If you need blood during surgery or due to an injury or illness, it's essential to receive blood of a type that is compatible with your own. The hospital laboratory will type your blood and match it to donor units to ensure you only receive compatible blood. Otherwise, you may have a hemolytic transfusion reaction when your immune system detects foreign proteins on the cells of an incompatible blood type and attempts to destroy them. Transfusion reactions range from mild to life-threatening. They can appear right after a transfusion or up to weeks later. You can also help others by knowing your blood type in case you are in a position to donate to another individual in need or because blood bank supplies of your type of blood are low. Different blood types also appear to make people more or less likely to develop certain conditions, including kidney stones, high blood pressure during pregnancy, and bleeding disorders. One study found people with blood group A have a higher likelihood of infection with COVID-19 than those in blood group O. Compatible blood types are based on whether the recipient has antibodies to the donor blood antigens or may develop them. Early in life, your immune system forms antibodies against A or B antigens not present on your red blood cells. People with blood type A will have anti-B antibodies, and those with type B blood will have anti-A antibodies. Type O blood has both anti-A and anti-B antibodies. Type AB blood has neither A nor B antibodies. Antibodies only form against the Rh factor if an Rh negative person is exposed to Rh positive blood due to transfusion or pregnancy. The following chart shows what types of blood are compatible with each other.
Blood Type Compatibility Chart
Your Blood Type Compatible With Donor Blood Types
O+ O+ O- O-
A+ A+, A-, O+ O-
A- A-, O- B+ B+, B-, O+ O-
B- B-, O-
AB+ AB+, AB-, A+, A-, B+, B-
AB- AB-, A-, B-, O-
Type O negative blood is called a universal donor, meaning that it can be safely given to people with most other blood types and has a low risk of a transfusion reaction.

People with type AB positive blood are known as universal recipients, meaning they can be given almost any type of blood safely. Unless blood is needed immediately to save a person's life, the hospital laboratory will type the person's blood and perform compatibility testing with the donor blood units (crossmatching) to ensure the safety of the transfusion. If you are pregnant, it's important to identify your Rh blood type so you and your healthcare providers can prevent the consequences of Rh incompatibility. This affects only pregnant people who are Rh negative. If the pregnant person is Rh negative and the other parent is Rh positive, the fetus may be Rh positive. This is called Rh incompatibility. This incompatibility will not affect a child born during a first incompatible pregnancy. During birth, however, the blood of the pregnant person and fetus mixes. The Rh negative pregnant person can develop antibodies to the Rh factor. Those antibodies could harm subsequent fetuses that are Rh positive. The pregnant person's anti-Rh(D) antibodies will identify fetal Rh proteins as foreign and attack them. Fetal red blood cells can swell and tear in response, known as hemolytic disease of the fetus and newborn. This can lower the fetus's or newborn's red blood cell count and lead to serious consequences, such as brain damage, pregnancy loss, or death of the newborn. An Rh negative pregnant person who has not developed anti-Rh(D) antibodies should given RhoGAM, or intravenous WinRho, a Rh(D) immune globulin to prevent the development of the antibodies. A blood test can determine your blood type. If you donate blood or plasma, blood typing will be performed at no charge. You can learn your blood type from the report of the donor service. Blood typing is not a part of routine blood tests. It's commonly ordered if you are having surgery, need a blood transfusion or organ transplant, or are pregnant. You could request a blood type test from your healthcare provider, but it may not be covered by health insurance if it isn't medically necessary. At a healthcare facility, a small amount of blood will be drawn and sent to a lab for testing. Check your medical record to see if a blood type test was done in the past and it is reported there. If you are unsure how to access your medical record, ask your healthcare provider. Home blood type tests are available in most states. They are generally accurate if performed correctly. Saliva tests are another option, but they may be more costly and less accurate. While your blood type doesn't change, a blood type test will be performed each time you need a transfusion. An incompatible transfusion can be fatal, so extreme care is taken to ensure you receive only compatible units. Blood typing is reported using the ABO blood system and the presence or absence of the Rh(D) antigen known as the Rh factor, resulting in eight major blood types. Some blood types are much more common than others. If someone needs a blood transfusion, it is essential to use the same or a compatible type of blood to avoid potentially serious reactions to a transfusion. Pregnant people and their healthcare providers must know their Rh factor status to avoid hemolytic disease of the fetus and newborn. Professional laboratory blood typing is more reliable than home tests, though home blood type tests are available. There are 4 main blood groups (types of blood) – A, B, AB and O. Your blood group is determined by the genes you inherit from your parents.Each group can be either RHD positive or RHD negative, which means in total there are 8 blood groups. Blood is made up of red blood cells, white blood cells and platelets in a liquid called plasma. Your blood group is identified by antibodies and antigens in the blood.Antibodies are proteins found in plasma. They're part of your body's natural defences. They recognise foreign substances, such as germs, and alert your immune system, which destroys them.Antigens are protein molecules found on the surface of red blood cells. There are 4 main blood groups defined by the ABO system:Blood group A – has A antigens on the red blood cells with anti-B antibodies in the plasmablood group B – has B antigens with anti-A antibodies in the plasmablood group O – has no antigens, but both anti-A and anti-B antibodies in the plasmablood group AB – has both A and B antigens, but no antibodiesBlood group O is the most common blood group. Almost half of the UK population (around 48%) has blood group O.Receiving blood from the wrong ABO group can be life-threatening. For example, if someone with group B blood is given group A blood, their anti-A antibodies will attack the group A cells.This is why group A blood must never be given to someone who has group B blood and vice versa.As group O red blood cells do not have any A or B antigens, it can safely be given to any other group.Find out more about the different blood groups on the NHS Blood and Transplant (NHSBT) website
Red blood cells sometimes have another antigen, a protein known as the RHD antigen. If this is present, your blood group is RHD positive. If it's absent, your blood group is RHD negative.This means you can be 1 of 8 blood groups:
A RHD positive (A+)
A RHD negative (A-)
B RHD positive (B+)
B RHD negative (B-)
O RHD positive (O+)
O RHD negative (O-)
AB RHD positive (AB+)
AB RHD negative (AB-)
About 85% of the UK population is RhD positive (35% of the population has O+, the most common type).In most cases, O RhD negative blood (O-) can safely be given to anyone.

It's often used in medical emergencies when the blood type is not immediately known.It's safe for most recipients because it does not have any A, B or RhD antigens on the surface of the cells, and is compatible with every other ABO and RhD blood group.Find out more about the Rh system on the NHS Blood and Transplant (NHSBT) website
To find out your blood group, a sample of your blood has to be taken and tested. However, GPs do not routinely check people's blood group.You can find out your blood group by giving blood.For the blood group test, your red blood cells are mixed with different antibody solutions. If, for example, the solution contains anti-B antibodies and you have B antigens on your cells (you're blood group B), it will clump together.If the blood does not react to any of the anti-A or anti-B antibodies, it's blood group O. A series of tests with different types of antibody can be used to identify your blood group.If you have a blood transfusion (where blood is taken from one person and given to another) your blood will be tested against a sample of donor cells that contain ABO and RhD antigens. If there's no reaction, donor blood with the same ABO and RhD type can be used. Pregnant women are always given a blood group test. This is because if the mother is RhD negative but the child has inherited RhD-positive blood from the father, it could cause complications if left untreated.RhD-negative women of child-bearing age should always only receive RhD-negative blood.Read more about Rhesus disease. Most people are able to give blood, but a lot fewer people than are needed to meet demand actually do.You can usually donate blood if you:are fit and healthyweigh between 50kg (7st 12lb) and 158kg (25st)are 17 to 65 years oldFind your nearest blood donor centre in England and North Wales on the NHSBT websiteYou can book an appointment online, or you can call 0300 123 23 23 to book an appointment. Page last reviewed: 10 May 2023
Next review due: 10 May 2026
The blood types are A, B, AB, and O. The Rh factor makes them either positive or negative.Blood types are a classification of blood based on the presence or absence of specific antigens on the surface of red blood cells. These antigens determine the body's immune response to foreign substances and are crucial in the context of blood transfusions, organ transplants, and pregnancy.The ABO blood group system is the primary blood type classification system. It categorizes blood into four main types:Type A: Has A antigens on the red cells and anti-B antibodies in the plasma.Type B: Has B antigens with anti-A antibodies in the plasma.Type AB: Has both A and B antigens, but no anti-A or anti-B antibodies. Known as the universal recipient.Type O: Has no A or B antigens, but both anti-A and anti-B antibodies. Known as the universal donor.The Rh factor is another critical component of blood typing. It refers to the presence or absence of the Rh antigen, commonly known as the D antigen. Blood is either Rh-positive (Rh+) or Rh-negative (Rh-).Combining the ABO system with the Rh factor, there are eight main blood types:The rarity of blood types varies depending on where you live. In the US:Rarest Blood Type: AB-, followed by B- and A-.Most Common Blood Type: O+, followed by A+ and B+.Universal Donor: O- (can be given to almost anyone, especially in emergencies).Universal Receiver: AB+ (can receive from all blood types).A can receive A and OB can receive B and OAB can receive A, B, AB, and O (universal recipient)O can receive only O (universal donor)Donor TypeA RecipientB RecipientAB RecipientO RecipientAYesNoYesNoBNoYesYesNoABYesYesNoBOYesYesNoOYesYesYesNote: “Yes” indicates compatibility for a transfusion between the donor and recipient blood types.Regarding the Rh factor, Rh+ can receive both Rh+ and Rh- blood, whereas Rh- can only receive Rh- blood.The rules for plasma donation and transfusion are different from those for red blood cell transfusion because plasma contains antibodies, not antigens. Here's how it works based on the ABO and Rh blood groups:AB Plasma: Universal plasma donor.O Plasma: Best for O recipients.A Plasma: Suitable for A and AB recipients.B Plasma: Suitable for B and AB recipients.Donor TypeA RecipientB RecipientAB RecipientO RecipientAYesNoYesNoBNoYesYesNoABYesYesNoBOYesYesNoOYesYesYesNote: “Yes” indicates compatibility for a transfusion between the donor and recipient blood types.Type AB Plasma: Individuals with AB blood type are universal plasma donors because their plasma does not contain anti-A or anti-B antibodies. This means their plasma works for any recipient, regardless of the recipient's blood type (AB, A, B, or O).Type O Plasma: Type O individuals, while universal red blood cell donors, are not universal plasma donors. Their plasma contains both anti-A and anti-B antibodies, which attack the red blood cells of recipients with A, B, or AB blood types. Therefore, type O plasma is only given to O recipients.Type A Plasma: Type A plasma can be given to recipients with type A and AB blood types, as it contains anti-B antibodies but not anti-A antibodies.Type B Plasma: Type B Plasma can be given to recipients with type B and AB blood types, as it contains anti-A antibodies but not anti-B antibodies.The Rh factor (positive or negative) is less critical in plasma transfusions compared to red blood cell transfusions. This is because plasma does not typically contain Rh antibodies unless the donor has been sensitized (e.g., a woman with Rh-negative blood type who has been pregnant with an Rh-positive baby). However, in practice, compatibility is still considered to reduce any risk of reaction.Blood type inheritance is determined by the ABO and Rh genes inherited from parents. Each parent contributes one ABO allele and one Rh allele to their child.For example, if a parent has blood type A (AO genotype) and the other B (BO genotype), their child could have one of the following blood types: A (AO), B (BO), AB (AB), or O (OO). But, if one parent has blood type A (AA genotype) and the other parent has type B (BB) genotype, the blood type of a child is always AB.Rh inheritance is separate from ABO inheritance. The Rh+ is dominant to the Rh- gene. So, an Rh+ parent has either two copies of the Rh+ gene or one, while the Rh- parent always has two copies of the Rh- gene. If one or both parents has two copies of the Rh+ gene, all children are Rh+ (even if the other parent is Rh-). Parents who are Rh- have Rh- children. If one parent has one Rh+ and one Rh- gene and the other parent is Rh-, there is a 50:50 chance for a child to be Rh+ or Rh-.The phenotype of a person's blood type is A, B, AB, O, Rh+, Rh- (an observable characteristic), while the genotype (e.g., AO, AB, BB) usually is unknown unless they have children or undergo genetic testing.Blood types play a significant role in pregnancy, primarily due to the potential for Rh incompatibility between the mother and the fetus. This occurs when an Rh-negative mother carries an Rh-positive baby. The mother's body may recognize the baby's Rh-positive red blood cells as foreign and produce antibodies against them. This is not usually a problem during a first pregnancy but can become an issue in subsequent pregnancies.Sensitization: If an Rh-negative mother is sensitized (i.e., her immune system has developed antibodies against Rh-positive blood), these antibodies cross the placenta and attack the red blood cells of an Rh-positive fetus in future pregnancies.Hemolytic Disease of the Newborn (HDN): This condition occurs when the mother's antibodies destroy the fetus's red blood cells, leading to anemia, jaundice, heart failure, and even fetal death in severe cases.Rho(D) Immune Globulin (RhoGAM): Giving this medication to Rh-negative mothers during and after their first pregnancy with an Rh-positive baby prevents the mother's immune system from becoming sensitized to Rh-positive blood cells. This protects future pregnancies.While less common and usually less severe than Rh incompatibility, ABO incompatibility can also occur during pregnancy. This happens when the mother and baby have different ABO blood types, leading to the mother producing antibodies against the baby's blood type. However, these antibodies are usually IgM, which do not cross the placenta, thus posing less risk to the fetus compared to the Rh incompatibility scenario.In addition to the well-known ABO and Rh blood group systems, there are several other blood group systems recognized by the International Society of Blood Transfusion (ISBT). These systems feature different sets of antigens on the surface of red blood cells.

Some notable examples include:MNS System: This system depends on the presence or absence of M, N, S, s, and U antigens.Kell System: The Kell system includes antigens that are highly immunogenic, meaning they have a high potential to provoke an immune response. The most significant antigen in this system is the K antigen (also known as Kell or K1), and individuals are either K positive (K+) or K negative (K-).Duffy System: The Duffy system is associated with malaria resistance. The Duffy antigens (Fya and Fyb) play a role in how red blood cells interact with the parasites that cause malaria. People lacking these antigens (Fy-) are more resistant to certain types of malaria.Kidd System: The Kidd blood group system includes the Jka and Jkb antigens. Antibodies to these antigens cause transfusion reactions and hemolytic disease of the newborn.Lewis System: The Lewis blood group system is unique because Lewis antigens are not integral to the red blood cell membrane but are adsorbed onto the cell surface from plasma. Lewis antigens are involved in the body's response to infections and are used in forensic testing.P System: This system includes several antigens, with the most prominent being P1. The presence or absence of these antigens is important in transfusion medicine.Lutheran System: The Lutheran blood group system features a large number of antigens, with Lua and Lub being the most significant. Antibodies to these antigens can cause transfusion reactions.Diego System: This system is important in certain populations, such as those of East Asian or Native American descent. The most notable antigens in this system are Dia and Dib.Blood groups are an important factor in organ transplants, much like in blood transfusions, but the considerations for transplantation are more complex. The compatibility of blood types between the donor and recipient is crucial for reducing the risk of transplant rejection. However, matching blood types is just one aspect of a multifaceted process. Here's a closer look:Blood groups matter in transplants, but maybe not in the way you expect:ABO Compatibility: Just as in blood transfusions, the ABO blood group system is critical in organ transplantation. An incompatible blood group potentially leads to immediate rejection of the transplanted organ.Rh Factor: Unlike in blood transfusions, the Rh factor is not a major concern in organ transplants.Variability in Waiting Times: Some blood groups might wait longer for organ transplants due to the availability of compatible organs. For instance, Type O individuals can only receive organs from Type O donors, potentially leading to longer waiting times.AB Blood Group: Individuals with AB blood type often have shorter waiting times for certain transplants like kidney transplants because they can accept organs from any ABO blood group.Instead of matching blood groups, transplants require more comprehensive tests as well as aftercare.Tissue Typing (HLA Matching): Human leukocyte antigens (HLA) are proteins on the surface of cells responsible for the immune system's recognition of self versus non-self. A closer HLA match between donor and recipient reduces the risk of organ rejection.Crossmatching: Before a transplant, a crossmatch test is done to ensure that the recipient's body does not have pre-formed antibodies against the donor's antigens, which could cause immediate organ rejection.Immunosuppression: Even with a good match, recipients typically need to take immunosuppressive medications for the rest of their lives to prevent rejection.Generally, a person's blood type depends on genetics, so it remains constant throughout their life. However, there are very rare instances and specific medical conditions or interventions that change an individual's blood type:Bone Marrow Transplant/Stem Cell Transplant: This is the most common situation where a change in blood type can occur. If a person receives a bone marrow transplant from a donor with a different blood type, the recipient's blood type eventually changes to match the donor's. This is because the blood cells are produced by the stem cells from the donor's bone marrow.Certain Diseases or Infections: For example, there are cases where systemic lupus erythematosus (SLE) causes a temporary change in blood group, possibly due to autoantibody production.Blood Transfusions: In extremely rare cases and usually only in large volume transfusions, the blood type changes temporarily. This is not a true change in blood type but rather a mixing of donor and recipient blood.Chimerism: This rare condition occurs when an individual has two different sets of DNA, which happens as a result of a bone marrow transplant, a blood transfusion, or naturally in the case of certain types of twins. In some cases of chimerism, different parts of the body exhibit different blood types.Mutations: Very rare genetic mutations lead to changes in the antigens present on the surface of red blood cells, potentially altering the perceived blood type. However, such cases are extremely uncommon.Avent, N.D. (2009). "Large-scale blood group genotyping: clinical implications". *Br J Haematol*. 144 (1): 3–13. doi:10.1111/j.1365-2141.2008.07285.xFauci, Anthony S.; Braunwald, Eugene; et al. (1998). *Harrison's Principals of Internal Medicine*. McGraw-Hill. ISBN 0-07-020291-5.Kremer Hovinga, L.; Koopmans, M.; et al. (2007). "Change in blood group in systemic lupus erythematosus". *Lancet*. 369 (9557): 196–7. author reply 187. doi:10.1016/S0140-6736(07)60099-3Maton, Anthea; Hopkins, Jean; et al. (1998). *Human Biology and Health*. Englewood Cliffs NJ: Prentice Hall. ISBN 0-13-981176-1.Stayboldt, C.; Reardon, A.; Lane, T. A. (1987). "B antigen acquired by normal A1 red cells exposed to a patient's serum". *Transfusion*. 27 (1): 41–4. doi:10.1046/j.1537-2995.1987.27187121471.xRelated Posts Share – copy and redistribute the material in any medium or format for any purpose, even commercially. 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